AMENDMENTS TO THE CLAIMS

Please amend the claim as follows. Please add claims 26 and 27.

1.   (Currently Amended) A method for automatically designing a catalog for a plurality of items using a computer system, the method comprising the steps of:

estimating a relationship between placement of an item in a catalog and corresponding user responses, the user responses being obtained from a transaction history;

determining an optimized position for each item using the estimated relationships;

forming a catalog with the items being placed at determined optimized positions;

deploying a plurality of initial catalogs with different item placements; and

obtaining user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs for different groups of users over a same period of time, different catalogs for a same group of users over different periods of time, and a combination of both, where said different and same group of users can view only one said different catalogs over a particular period of time,

wherein the step of estimating a relationship between placement of the items in a catalog and corresponding user responses comprises the steps of:

computing item differentials from the user responses; and

computing search costs from the user responses,

wherein the step of computing item differentials comprises the steps of:

computing an effect of the nature of an item on said user responses; and

computing an effect of the nature of an item on said user responses for other items

in the catalog,

wherein the step of computing search costs comprises the steps of:

computing an effect of placing an item at a particular position in the catalog on said user responses; and

computing an effect of relative positions of items on said user responses,

wherein the step of determining an optimized position comprises the steps of:

modeling a merchant specified objective as an optimization function in terms of item placement, ~~item differentials, and search costs~~; and

evaluating the optimization function to identify an optimal placement of each item in the catalog.

Claims 2-25.   (Canceled.)

26.   (New) A method for automatically designing a catalog for a plurality of items using a computer system, the method comprising the steps of:

estimating a relationship between placement of an item in a catalog and corresponding user responses, the user responses being obtained from a transaction history;

determining an optimized position for each item using the estimated relationships;

forming a catalog with the items being placed at determined optimized positions;

deploying a plurality of initial catalogs with different item placements; and

obtaining user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs for different groups of users over a same period of time, different catalogs for a same group of users over different periods of time, and a combination of

both,

 wherein the step of estimating a relationship between placement of the items in a catalog

and corresponding user responses comprises the steps of:

  computing item differentials from the user responses; and

  computing search costs from the user responses,

 wherein the step of computing item differentials comprises the steps of:

  computing an effect of the nature of an item on said user responses; and

  computing an effect of the nature of an item on said user responses for other items

in the catalog,

 wherein the step of computing search costs comprises the steps of:

  computing an effect of placing an item at a particular position in the catalog on

said user responses; and

  computing an effect of relative positions of items on said user responses,

 wherein the step of determining an optimized position comprises the steps of:

  modeling a merchant specified objective as an optimization function in terms of

item differentials, wherein said item differentials quantify user responses based on a

nature of an item; and

 evaluating the optimization function to identify an optimal placement of each item in the

catalog.

 27. (New) A method for automatically designing a catalog for a plurality of items

using a computer system, the method comprising the steps of:

 estimating a relationship between placement of an item in a catalog and corresponding

user responses, the user responses being obtained from a transaction history;

      determining an optimized position for each item using the estimated relationships;

      forming a catalog with the items being placed at determined optimized positions;

      deploying a plurality of initial catalogs with different item placements; and

      obtaining user responses for the initial catalogs, wherein the plurality of initial catalogs refer to any of different catalogs for different groups of users over a same period of time, different catalogs for a same group of users over different periods of time, and a combination of both,

      wherein the step of estimating a relationship between placement of the items in a catalog and corresponding user responses comprises the steps of:

            computing item differentials from the user responses; and

            computing search costs from the user responses,

      wherein the step of computing item differentials comprises the steps of:

            computing an effect of the nature of an item on said user responses; and

            computing an effect of the nature of an item on said user responses for other items in the catalog,

      wherein the step of computing search costs comprises the steps of:

            computing an effect of placing an item at a particular position in the catalog on said user responses; and

            computing an effect of relative positions of items on said user responses,

      wherein the step of determining an optimized position comprises the steps of:

            modeling a merchant specified objective as an optimization function in terms of search costs, wherein said search costs quantify an effect of placement of items on user

responses; and

evaluating the optimization function to identify an optimal placement of each item in the

catalog.